Brewer's Spent Grain Valorization Using Phosphoric Acid Pretreatment for Second Generation Bioethanol Production

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Short introductive summary:

Brewer's spent grain constitutes a byproduct of beer making process yearly generated in big amounts and lacking of economic feasible applications. This lignocellulosic residue was characterized and pretreated by dilute phosphoric acid according to a rotatable central composite design to evaluate the effect of phosphoric acid concentration (2-6% w/v) and pretreatment temperature (140-180ºC). The influence of these factors on the hemicellulosic sugar solubilisation and the subsequent enzymatic hydrolysis was evaluated. Optimal pretreatment conditions were determined by maximizing both hemicellulosic sugar recovery in liquids and enzymatic hydrolysis yield.

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Presenter's biography:

Inma Romero is a teacher and researcher at the University of Jaén, Spain. She researches mainly about bioethanol production and other added-value products from lignocellulosic residues (rapeseed straw, olive tree biomass, sunflower stalks and brewer's spent grain).

Biographies and Short introductive summaries are supplied directly by presenters and are published here unedited

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